

## IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1           1.       (Currently Amended) A method for modifying printing based upon direct on-  
2 the-fly media characteristic parameters, comprising:

3               on-the-fly directly measuring at least one physical characteristic parameter of the  
4 print media; ~~and~~

5               in real-time performing a print modification to a print device for printing on the  
6 measured print media in response to the at least one on-the-fly directly measured physical  
7 characteristic parameter of the print media; and

8               hot rolling the media before printing, wherein the hot rolling is implemented prior to  
9 the application of a coating to lower the moisture content of the media, the lowering of the  
10 moisture content improving coating coverage and adhesion.

1           2.       (Original)     The method of claim 1 wherein the on-the-fly directly  
2 measuring comprises scanning the media with a scanner.

1           3.       (Original)     The method of claim 2 wherein the scanner is a CCD camera.

1           4.       (Original)     The method of claim 2 wherein the scanner is used to  
2 determine whether toner is properly adhering to the media.

1           5.       (Original)     The method of claim 4 wherein the scanner is a CCD camera.

1           6.       (Previously Presented)       The method of claim 1 further comprising  
2   applying a surface coating on the media before printing.

1           7.       (Original)       The method of claim 6 wherein the surface coating is applied  
2   to only one side of the media.

1           8.       (Original)       The method of claim 6 wherein the surface coating is applied  
2   to both sides of the media.

1           9.       (Canceled)

1           10.      (Currently Amended) The method of claim [[ 9 ]] 1 wherein the hot rolling  
2   comprises flattening rough fibers and drying the media.

1           11.      (Currently Amended) The method of claim [[ 9 ]] 1 wherein the hot rolling is  
2   implemented after the application of a coating to cure the coating.

1           12.      (Canceled)

1           13.      (Original)       The method of claim 1 wherein the on-the-fly directly  
2   measuring further comprises measuring a quality of print for the media.

1           14.      (Original)       The method of claim 13 wherein the quality of print comprises  
2   print marking adhesion.

1           15.      (Original)       The method of claim 14 wherein the print marking is toner.

1            16.    (Original)    The method of claim 13 wherein measuring comprises  
2    detecting the quality of print using at least one scanner.

1            17.    (Original)    The method of claim 16 wherein the scanner is a CCD camera.

1            18.    (Original)    The method of claim 14 further comprising applying a coating  
2    to promote adhesion when the print marking adhesion is poor.

1            19.    (Previously Presented)    The method of claim 1 wherein the performing a  
2    print modification further comprises adjusting halftone screens for measured media surface  
3    and absorption characteristics.

1            20.    (Original)    The method of claim 19 wherein the halftone screens are  
2    adjusted for spatially varying dot gain.

1            21.    (Original)    The method of claim 19 wherein the halftone screens are  
2    adjusted for excessive dot gain.

1            22.    (Original)    The method of claim 19 wherein the halftone screens are  
2    adjusted to prevent bleed through for thin media.

1            23.    (Previously Presented)    The method of claim 1 wherein the measuring  
2    comprises detecting print quality and the performing a print modification further comprises  
3    adjusting toner concentration when the print quality is poor.

1           24.   (Previously Presented)       The method of claim 1 wherein the measuring  
2 further comprises measuring mottle effects in the printed media.

1           25.   (Original)       The method of claim 24 wherein a scanning element is used to  
2 detect the mottle effects.

1           26.   (Original)       The method of claim 25 wherein the scanner comprises an  
2 array of scanning elements placed early in the media path.

1           27.   (Original)       The method of claim 26 wherein the array is a one dimensional  
2 array.

1           28.   (Original)       The method of claim 26 wherein the array is a two dimensional  
2 array.

1           29.   (Original)       The method of claim 1 wherein the measuring further  
2 comprises illuminating the media from behind using a bottom light source and collecting a  
3 resulting transmitted image using scanning elements.

1           30.   (Original)       The method of claim 1 wherein the measuring further  
2 comprises reflecting light off of the media using a top light source.

1           31.    (Original)    The method of claim 1 wherein the measuring further  
2   comprises illuminating the media from behind using a bottom light source and collecting a  
3   resulting transmitted image using scanning elements and reflecting light off of the media  
4   using a top light source.

1           32.    (Previously Presented)    The method of claim 1 wherein the performing a  
2   print modification comprises adjusting a print algorithm.

1           33.    (Original)    The method of claim 32 where the print algorithm is adjusted  
2   to compensate for mottle in the media.

1           34.    (Original)    The method of claim 32 wherein the detection of mottle in the  
2   media drives a local coating system for selectively applying a coating on the media.

1           35.    (Original)    The method of claim 1 wherein the print device is a printer.

1           36.    (Original)    The method of claim 1 wherein the print device is a digital  
2   copier.

1           37.   (Currently Amended) A print device, comprising:  
2           a marker system for rendering a page layout on a medium; ~~and~~  
3           a processing system, coupled to the marker system, the processing system directly  
4   measuring on-the-fly at least one physical characteristic parameter of the print media and in  
5   real-time performing a print modification to the print device for printing on the measured  
6   print media in response to the at least one on-the-fly directly measured physical characteristic  
7   parameter of the print media; and  
8           hot rollers, the processor using the hot rollers to hot roll the media before printing,  
9   wherein the hot rollers are used for hot rolling prior to the application of a coating to lower  
10   the moisture content of the media, the lowering of the moisture content improving coating  
11   coverage and adhesion.

1           38.   (Original)    The print device of claim 37 wherein at least one scanner  
2   provides measurements of the at least one print media characteristic parameter.

1           39.   (Original)    The print device of claim 38 wherein the scanner is used to  
2   determine whether toner is properly adhering to the media.

1           40.   (Previously Presented)    The print device of claim 37 further comprising  
2   a coating applicator coupled to the processor, the processor using the coating application to  
3   apply a surface coating on the media before printing.

1           41.   (Original)    The print device of claim 40 wherein the coating applicator  
2   applies a coating to only one side of the media.

1           42.     (Original)     The print device of claim 40 wherein the coating applicator  
2     applies a coating to both sides of the media.

1           43.     (Canceled)

1           44.     (Currently Amended) The print device of claim [[ 43 ]] 37 wherein the hot  
2     rollers flatten rough fibers and dry the media.

1           45.     (Currently Amended) The print device of claim [[ 43 ]] 37 wherein the hot  
2     rollers are used for hot rolling the media after the application of a coating to cure the coating.

1           46.     (Canceled)

1           47.     (Original)     The print device of claim 43 further comprising at least one  
2     scanner for measuring a quality of print for the media.

1           48.     (Original)     The print device of claim 47 wherein the quality of print  
2     comprises print marking adhesion.

1           49.     (Original)     The print device of claim 48 wherein the print marking is toner.

1           50.     (Previously Presented)     The print device of claim 47 further comprising  
2     a coating applicator, the processor using the coating applicator to apply a coating to promote  
3     adhesion when the print marking adhesion is poor.

1           51.    (Original)    The print device of claim 37 wherein the marker adjusts  
2 halftone screens for media surface and absorption characteristics.

1           52.    (Original)    The print device of claim 37 wherein the marker adjusts  
2 halftone screens for spatially varying dot gain.

1           53.    (Original)    The print device of claim 37 wherein the marker adjusts  
2 halftone screens for excessive dot gain.

1           54.    (Original)    The print device of claim 37 wherein the marker adjusts  
2 halftone screens to prevent bleed through for thin media.

1           55.    (Previously Presented)    The print device of claim 37 further comprising  
2 at least one scanner for detecting a print quality, wherein , the processor adjusts a toner  
3 concentration when the print quality is poor.

1           56.    (Original)    The print device of claim 37 further comprising a scanner to  
2 detect mottle effects.

1           57.    (Original)    The print device of claim 56 wherein the scanner comprises an  
2 array of scanning elements placed early in the media path.

1           58.    (Original)    The print device of claim 57 wherein the array is a one  
2 dimensional array.



1           59.    (Original)    The print device of claim 57 wherein the array is a two  
2   dimensional array.

1           60.    (Original)    The print device of claim 37 further comprising a bottom light  
2   source for illuminating the media from behind and a scanner for collecting a resulting  
3   transmitted image.

1           61.    (Original)    The print device of claim 37 further comprises a top light  
2   source for reflecting light off of the media.

1           62.    (Original)    The print device of claim 37 further comprising a bottom light  
2   source for illuminating the media from behind and scanner for collecting a resulting  
3   transmitted image and a top light source for reflecting light off of the media.

1           63.    (Original)    The print device of claim 37 wherein scanner provides the  
2   processor a control signal to adjust a print quality measurement algorithm.

1           64.    (Original)    The print device of claim 63 where the print algorithm is  
2   adjusted to compensate for mottle in the media.

1           65.    (Original)    The print device of claim 63 wherein the processor upon  
2   receiving a signal indicating mottle in the media drives a local coating system for selectively  
3   applying a coating on the media.

1            66.    (Original)    The print device of claim 37 wherein the print device is a  
2   printer.

1            67.    (Original)    The print device of claim 37 wherein the print device is a  
2   digital copier.

1            68.    (Canceled)